

SECTION 10653 - FIRE-RATED OPERABLE PANEL PARTITIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Electrically-operated horizontal sliding accordion-type fire doors.

1.3 SUBMITTALS

- A. Product Data: Material descriptions, construction details, finishes, installation details, and operating instructions for each type of fire-rated operable panel partition, component, and accessory specified. Include data on acoustical performance, surface-burning characteristics, fire-rated assemblies, and durability.
- B. Shop Drawings: Show location and extent of fire-rated operable panel partitions. Include plans, elevations, sections, details, attachments to other construction, and accessories. Indicate dimensions; weights; conditions at openings and for storage; and required installation, storage, and operating clearances. Indicate location and installation requirements for hardware and track, and direction of travel. Show blocking to be provided by others. Include the following:
 - 1. Calculations: Calculate requirements for supporting fire-rated operable panel partitions and verify capacity of carriers and track components to



support loads; indicate deflection limits for partition and adjacent construction.

- C. Setting Drawings: Show installation details, layout, and electrical requirements.
- D. Samples for Initial Selection: Manufacturer's color charts showing the full range of optional colors.
- E. Product Certificates: Signed by manufacturers of fire-rated operable panel partitions certifying that products furnished comply with requirements.
- F. Qualification Data: For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with names and addresses of architects and owners, and other information specified.
- G. Product Test Reports: From a qualified testing agency indicating that each fire-rated operable panel partition complies with requirements, based on comprehensive testing.
- H. Maintenance Data: Include the following in maintenance manuals specified in Division 1:
 - 1. Precautions for cleaning materials and methods that could be detrimental to finishes and performance for panel face, exposed trim, and accessories.
 - 2. Seals, hardware, track, carriers, and other operating components.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who is certified in writing by the fire-rated operable panel partition manufacturer as qualified to install the manufacturer's partition systems for work similar in material, design, and extent to that indicated for this Project.



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- B. Fire-Test-Response Characteristics: Provide fire-rated operable panel partitions with the following fire-test-response characteristics per ASTM E 84, as determined by testing identical products per test method indicated below by UL or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify materials and components with appropriate markings of applicable testing and inspecting agency.
1. Flame Spread: 25 or less.
 2. Smoke Developed: 450 or less.
 3. Fire-Rated Door Assemblies: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency for fire ratings indicated.

1.5 PROJECT CONDITIONS

- A. Field Measurements: Verify fire-rated panel partition openings and storage arrangements by field measurements before fabrication and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to:
1. Won-Door Corporation.

2.2 FIRE-RATED OPERABLE PANEL PARTITIONS

- A. Panel Construction: Provide manufacturer's standard frame fabricated from steel sheets with top reinforcement as required to support panel from suspension components, tension-leveled steel face sheets welded to frame, and rein-

forcement for hardware attachment. Fabricate panels with tight hairline joints, concealed fasteners, and finished edges. Fabricate panels so finished in-place partition is rigid; level; plumb; aligned, with tight joints and uniform appearance; and free of bow, warp, twist, deformation, and surface and finish irregularities.

- B. Dimensions: Fabricate fire-rated operable panel partitions, from manufacturer's standard sizes, to form an assembled system of dimensions indicated on Drawings and verified by field measurements.
- C. Trim: Manufacturer's standard trim for fire-rated operable panel partitions with decorative, protective finish.
- D. Hardware: Manufacturer's standard for fire-rated operable panel partitions and as required to operate fire-rated operable panel partition and accessories; with decorative, protective finish.
- E. Perimeter Seals: Provide manufacturer's standard continuous extruded vinyl sweeps attached to the top and bottom of the fire doors to form a smoke and draft seal.
 - 1. Seals fitting tight at contact surfaces and sealing continuously between adjacent panels and between operable panel partition perimeter and adjacent surfaces, when operable panel partition is extended, closed, and in place.

2.3 FINISH FACING

- A. General: Provide finish facings that comply with indicated fire-test-response characteristics and that are factory applied to fire-rated operable panel partitions.
- B. Paint: Manufacturer's standard factory-painted finish in optional color(s) as selected.

2.4 FIRE-RATED OPERABLE PANEL PARTITION SUSPENSION SYSTEMS



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- A. Suspension Tracks: Steel or aluminum with adjustable steel hanger rods for overhead support, designed for type of operation, size, and weight of fire-rated operable panel partition indicated. Size track to support partition operation and storage without damage to suspension system, fire-rated operable panel partitions, or adjacent construction. Limit track deflection to no more than 0.10 inch (2.5 mm) between bracket supports. Provide a continuous system of track sections and accessories, identical to products tested for fire rating indicated, to accommodate configuration and layout for partition operation and storage.
1. Head Closure Trim: As required for fire rating.
- B. Carriers: Steel trolley system as required for configuration type, size, and weight of partition and for easy operation; with ball-bearing wheels.

2.5 ACCESSORIES

- A. Horizontal sliding, accordion-type fire doors.
- Push plate fire exit device.
 - Key switch module with audible alarm.
 - Anti-sway cables.
 - Rigid z-stops and floating jambs.
- B. Storage Pocket Door: Full height at end of partition runs to conceal stacked partition; of same materials, finish, construction, thickness, and acoustical qualities as panels; complete with frames and operating hardware. Hinges in finish to match other exposed hardware, with acoustical seals at soffit, floor, and jambs.
1. Rim Lock: Deadlock to receive cylinder, to secure pocket door in closed position. Refer to Division 8 Section "Door Hardware" for lock cylinder and keying requirements.

PART 3 - EXECUTION

3.1 EXAMINATION

FIRE-RATED OPERABLE PANEL PARTITIONS



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- A. Examine flooring, structural support, and opening, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of fire-rated operable panel partitions. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General: Comply with ASTM E 557, fire-rated operable panel partition manufacturer's written installation instructions, Drawings, and approved Shop Drawings.
 - 1. Comply with NFPA 80 for installing fire-rated doors.
- B. Install fire-rated operable panel partitions and accessories after other finishing operations, including painting, have been completed.
- C. Broken, cracked, chipped, deformed, or unmatched panels are not acceptable.
- D. Install spring hinge on pocket cover door to hold cover doors open when activated.

3.3 ADJUSTING

- A. Adjust fire-rated operable panel partitions to operate smoothly, easily, and quietly, free from binding, warp, excessive deflection, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range. Lubricate hardware and other moving parts.
- B. Pocket Doors: Adjust to operate smoothly and easily, without binding or warping. Check and readjust operating hardware. Confirm that latches and locks engage accurately and securely without forcing or binding.

3.4 CLEANING AND PROTECTION



- A. Clean soiled surfaces on completing installation of fire-rated operable panel partitions, to remove dust, adhesives, and other foreign materials according to manufacturer's written instructions.
- B. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and Installer, that ensure fire-rated operable panel partitions are without damage or deterioration at time of Substantial Completion.
- C. Replace panels that cannot be cleaned and repaired, in a manner approved by the Owner, before time of Substantial Completion.

3.5 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain fire-rated operable panel partitions.
 - 1. Test and adjust seals, hardware, carriers, tracks, pocket doors, operators, controls, safety devices, and other operable components. Replace damaged or malfunctioning operable components.
 - 2. Train Owner's maintenance personnel on procedures and schedules for starting and stopping, troubleshooting, servicing, and maintaining equipment and schedules.
 - 3. Review data in maintenance manuals.
 - 4. Schedule training with Owner with at least seven days' advance notice.

END OF SECTION 10653

